Assessment Test 3

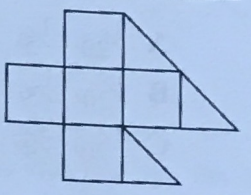
Allow 10 minutes to do Section A and 25 minutes to do Section B.
Work as quickly and as carefully as you can.

You can print **multiple-choice answer sheets** for these questions from our website — go to www.cgplearning.co.uk/11+. If you'd prefer to answer them in write-in format, either write your answers in the spaces provided or circle the **correct answer** from the options given.

Section A — Quick Maths

You have **10 minutes** to complete this section.
There are **30 questions** in this section.

1. Each of the small squares in the shape on the right has an area of 1 cm^2. What is the total area of the shape?



□□.□□ cm^2

2. Which unit is most suitable for measuring the length of a football pitch?

A centimetres **B** millimetres **C** metres **D** kilometres **E** litres

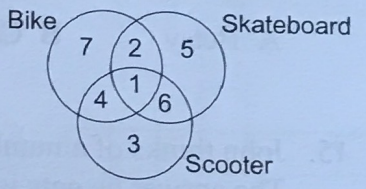
3. Elsa counts the vehicles that pass her school during her lunchtime. The pictogram shows her results. How many buses did she see?

□□

Vehicle type	Number of vehicles
Car	□ □ □ □
Van	□ ▫
Bus	□ ▭
Taxi	□ □ □ ▭

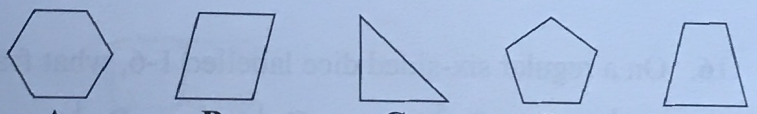
□ = 4

4. The Venn diagram on the right shows how many children in a class have bikes, skateboards and scooters. How many children have a skateboard and a scooter, but not a bike?



□□

5. Which of the shapes to the right has exactly one pair of parallel sides?



6. Robert is meeting a friend at 13:45. What is this time written in the 12-hour clock?

A 1:45 pm **B** 2:45 am **C** 1:45 am **D** 3:45 pm **E** 2:45 pm

7. How many lines of symmetry does a regular octagon have?

A 2 **B** 4 **C** 6 **D** 8 **E** 10

8. This chart shows the number of boys and girls in each year group in a school. How many children are in the biggest year group?

□□□

Year Group	Boys	Girls
2	49	50
3	52	56
4	55	57
5	54	59
6	35	54

9. Isla works out that 90 × 80 = 7200. What is 90 × 0.08?

□□.□□

Carry on to the next question →→

10. Which is the most likely mass of a tin of soup?

A 0.4 g **B** 400 g **C** 40 kg **D** 4 kg **E** 4 g

11. Maddy buys a tomato salad, some coleslaw and a jacket potato. How much change will she receive from a £5 note?

A £1.64 **B** £2.16 **C** £3.36 **D** £3.60 **E** £3.63

	Price
Coleslaw	25p
Green Salad	80p
Tomato Salad	40p
Rice Salad	50p
Potato Salad	45p
Jacket Potato	99p
Rice	85p

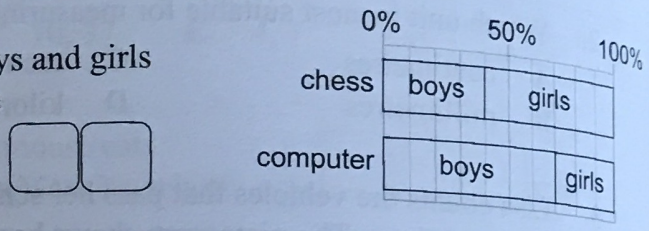
12. Look at these fractions.

$\frac{7}{20}$ $\frac{3}{4}$ $\frac{1}{5}$ $\frac{3}{20}$ $\frac{5}{20}$

Which of the following shows them arranged from smallest to largest?

A $\frac{3}{20}, \frac{1}{5}, \frac{5}{20}, \frac{3}{4}, \frac{7}{20}$
B $\frac{3}{20}, \frac{1}{5}, \frac{5}{20}, \frac{7}{20}, \frac{3}{4}$
C $\frac{3}{20}, \frac{3}{4}, \frac{1}{5}, \frac{5}{20}, \frac{7}{20}$
D $\frac{3}{4}, \frac{7}{20}, \frac{5}{20}, \frac{1}{5}, \frac{3}{20}$
E $\frac{1}{5}, \frac{3}{20}, \frac{5}{20}, \frac{7}{20}, \frac{3}{4}$

13. The chart on the right shows the proportions of boys and girls in the chess club and the computer club. There are 30 children in each club. How many more boys than girls are there in the computer club?



14. A group of children have a competition to see who is fastest at running a cross country race. The results are shown in the table on the right. Who came second?

A Betsy **B** Cara **C** Ian **D** Sian **E** Tony

Name	Time
Betsy	4 mins 18 secs
Cara	3 mins 59 secs
Ian	4 mins 2 secs
Sian	4 mins 20 secs
Tony	4 mins 27 secs

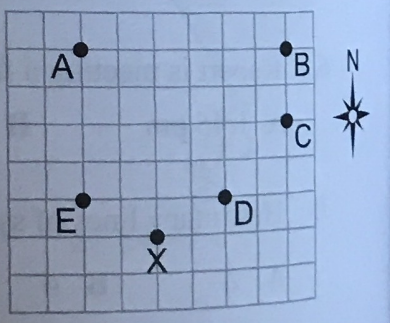
15. John thinks of a number. He multiplies it by 11 and subtracts 9. The answer he gets is 112. What number did he start with?

16. On a regular six-sided dice labelled 1-6, what fraction of the faces are square numbers?

A $\frac{1}{6}$ **B** $\frac{5}{6}$ **C** $\frac{1}{2}$ **D** $\frac{1}{3}$ **E** $\frac{2}{3}$

17. Jenny is standing facing north at the point marked X on the grid. She moves 3 units forward, then makes an anti-clockwise turn through 135°. Which letter is she now facing?

A **B** **C** **D** **E**



18. Sasha starts her homework at 4:20 pm. She can stop and go to visit her friend when she has done $1\frac{3}{4}$ hours of homework. What time can she visit her friend?

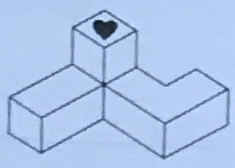
pm

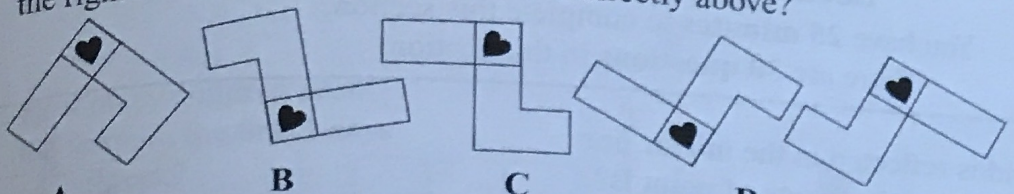
19. Sarah has run a total distance of 168 km over a 12 week period. How far does she run each day if she runs the same distance each day?

km

Carry on to the next question →→

20. Which diagram shows how the 3-dimensional shape to the right would look when viewed from directly above?





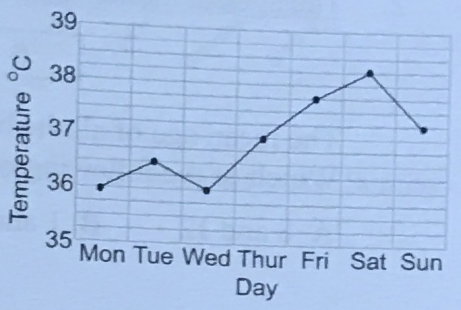
A B C D E

21. The perimeter of a rectangular floor tile is 120 cm. The length of the tile is 20 cm greater than its width. What is its width in centimetres?

☐☐ cm

22. The temperature of a patient at 9 am each day was recorded and plotted on a graph. What is the difference between the highest temperature and the lowest temperature?

☐.☐☐ °C



23. Luke starts a sequence at –5 and counts up in steps of 1.5. Which of the following numbers does he count?

A –1 B 0 C 2 D 3 E 4

24. Ben makes this pattern by repeating three shapes over and over again. How many hearts will there be in the first 20 shapes?

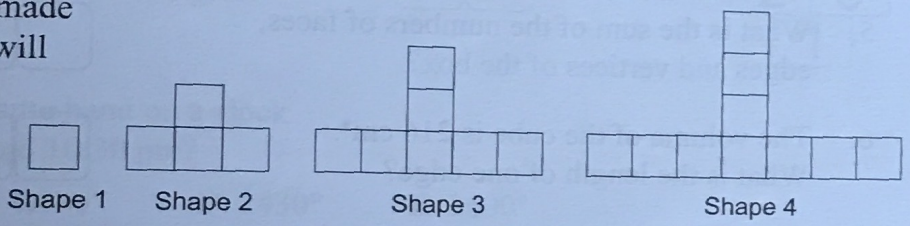
A 6 B 7 C 3 D 8 E 4

25. Sue's car uses 5 full tanks of petrol to travel 2985 miles. How many miles can she travel on one full tank of petrol?

☐☐☐☐ miles

26. Poppy is investigating a pattern made of squares. How many squares will be in shape 11 of the pattern?

☐☐

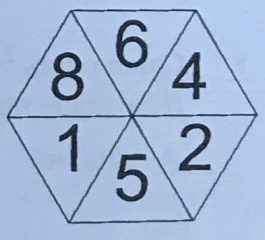


27. 1.75 pints = 1 litre. How many pint bottles would you need to hold 6 litres of water?

☐☐

28. Which statement below is true about the sections of the spinner on the right?

A It has the same amount of odd-numbered and even-numbered sections.
B 2 in every 3 sections is an even-numbered section.
C The ratio of odd-numbered sections to even-numbered sections is 2 : 1.
D 75% of the sections are even-numbered sections.
E ½ of the sections are prime-numbered sections.



29. Alice buys a 500 ml bottle of shampoo. She uses 125 ml in one week. What faction of the shampoo is left in the bottle?

A ¼ B ½ C ⅓ D ¾ E ⅔

30. The coordinates of 3 corners of a rectangle are (4, 2), (4, 10) and (8, 10). What are the coordinates of the fourth corner?

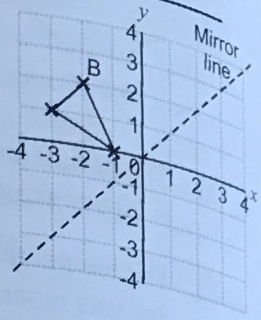
(☐☐,☐☐)

/ 30

Section B — Long Maths

You have **25 minutes** to complete this section.
There are **30 questions** in this section.

1. The shape on the grid is reflected in the mirror line.
What are the coordinates of the image of point B?



A (−2, 2) **B** (3, −2) **C** (1, −3) **D** (2, −2) **E** (−1, −3)

2. The ages in months of four out of six babies at a clinic are given below.

6	3	8	2

The mean age of all the babies is 5 months.
Which of the following could be the ages in months of the fifth and sixth babies?

A 8 and 12 **B** 1 and 2 **C** 3 and 8 **D** 11 and 12 **E** 3 and 4

James records the weather for 20 days. He draws a pie chart of his results.

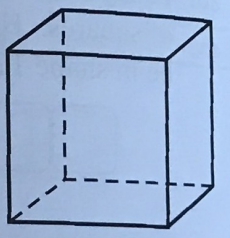
3. It was foggy for 3 days. What size angle should he draw to represent this?

A 90° **B** 54° **C** 36° **D** 45° **E** 180°

4. James draws an angle of 108° to correspond to the number of days on which it rained. Out of the 20 days James recorded, on how many did it rain? ☐☐

Veronica has an empty cardboard box which is shaped like a perfect cube.

5. What is the sum of the numbers of faces, edges and vertices of the box? ☐☐



6. The volume of the cube is 216 cm³.
What is the length of one edge? ☐☐ cm

7. A printer uses the following formula to work out the cost, C, in pounds, of printing m leaflets:

$$C = 15(m \div 100) + 5.$$

How much will it cost, in pounds, to have 300 leaflets printed? £☐☐☐

8. Caleb pours $\frac{2}{5}$ of a litre of water out of a full 10 litre bucket.
How many millilitres are left in the bucket?

A 9500 ml **B** 9600 ml **C** 600 ml **D** 9400 ml **E** 400 ml

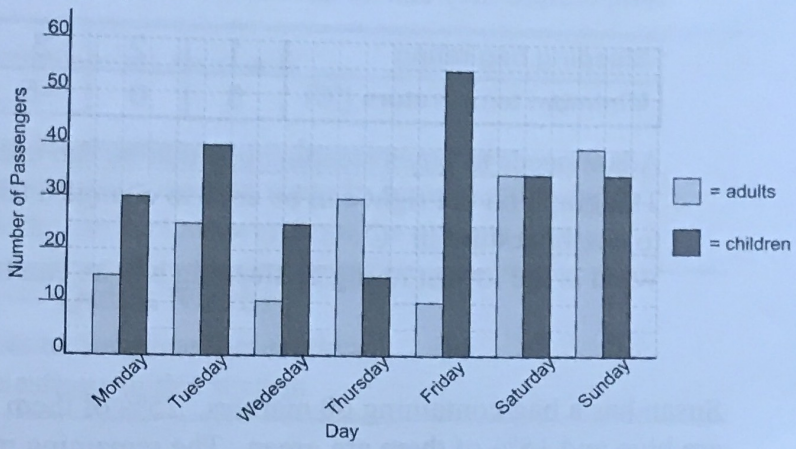
Ben is mixing feed for rabbits. The recipe states to mix 1 part of vegetables to 3 parts of hay and 5 parts of rabbit flakes by weight.

9. Ben makes a mix using 7.5 kg of rabbit flakes.
How many kg of hay will he need? ☐☐.☐ kg

10. Ben makes another mix which has 3.5 kg of vegetables in it.
What is the total weight of this mix in kilograms? ☐☐.☐ kg

Carry on to the next question →→

Paul is a ferryman. He counts the number of children and adults that use his ferry over the course of one week. He records his results on a bar graph.



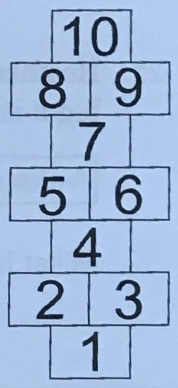
11. How many children used the ferry on the first 3 days of the week? ☐☐☐

12. How many more children than adults used the ferry that week? ☐☐

13. On which day did twice as many adults use the ferry as children?
A Monday **B** Tuesday **C** Wednesday **D** Thursday **E** Friday **F** Saturday **G** Sunday

14. On the day that the ferry had the fewest passengers, how many children used it? ☐☐

To the right is a hopscotch grid. The sum of the numbers on the grid is 55. The grid is extended so that the greatest number at the top of the grid is 20.



15. What is the sum of all the numbers on the extended grid? ☐☐☐

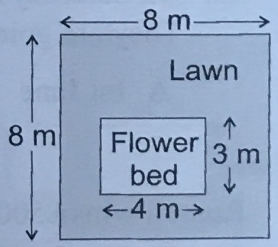
16. Once the hopscotch grid has been extended to 20, how many prime numbers are written on the grid? ☐☐

17. How many degrees does the minute hand on a clock turn through between 12 noon and 10:30 pm?
A 3160° **B** 3780° **C** 2300° **D** 2430° **E** 3600°

18. Rashid gets £2.50 pocket money each week. He is given an extra 30% pocket money if he cleans the family car. How much money will he receive over 3 weeks if he cleans the car each week? £☐☐.☐☐

The diagram shows Tamara's garden.

19. What is the area of the lawn? ☐☐☐ m²



20. It takes 5 minutes for Tamara to mow 4 m² of lawn. How long will it take her, in hours and minutes, to mow this lawn? ☐ hour(s) ☐☐ minutes

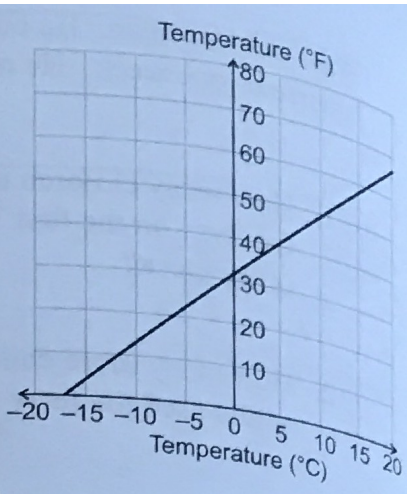
21. Ian buys 6 sandwiches costing £1.99 each and 3 drinks costing 49p each. He does this calculation to estimate the cost: 6 × £2 + 3 × £0.50
How does his estimate differ from the exact cost?
A £12 too much **B** 9p too much **C** 12p too little **D** 9p too little **E** 6p too much

Carry on to the next question →→

22. Sleeping bags are given a rating to show the minimum temperature they can be used at:

Sleeping bag rating	1	2	3	4	5
Minimum temperature (°C)	5	0	−5	−10	−15

Adam needs to buy a sleeping bag that he can use at 25 °F.
The graph on the right can be used to change a temperature in °F to a temperature in °C.
What is the lowest rating of sleeping bag he can buy?



Susan has a bag containing 60 marbles. 25% of them are red, 30% of them are blue and 15% of them are green. The remaining marbles are yellow.

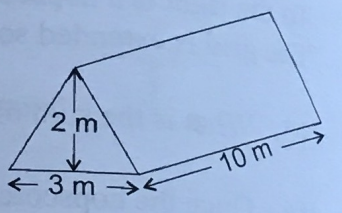
23. How many yellow marbles are in the bag?

24. What fraction of the marbles in the bag are green?

A $\frac{1}{4}$ **B** $\frac{5}{6}$ **C** $\frac{3}{20}$ **D** $\frac{1}{10}$ **E** $\frac{1}{5}$

25. Heather is packing a tent to take on holiday and wants to work out how big it is inside. She chooses to model it as a regular triangular prism.

Volume of a triangular prism = area of triangular side × length



What is the volume of Heather's tent? ☐☐☐ m^3

26. A school holds a concert. There are 42 rows of 48 seats.
How many seats are there?

27. This table shows the number of children in 6 different classes. What is the mean number of children?

Class	6A	6B	6C	6D	6E	6F
Number of children	16	16	11	17	12	12

28. On Saturday April 23rd, Claire's father tells her that it is 6 weeks until they go on holiday. They are going on holiday on a Saturday. What date will this be?

A 1st June **B** 2nd June **C** 3rd June **D** 4th June **E** 5th June

Russell wins £500 in a prize draw.

29. He spends £260 on a new computer, and decides to buy some games that cost £39.99 each. Which expression gives the amount of money Russell will have left if he buys n games?

A $240n$ **B** $500 - 260n$ **C** $240 + 39.99n$ **D** $240 - 39.99n$ **E** $500 - 39.99n$

30. What is the highest number of computer games Russell can buy from his winnings, after purchasing his new computer?

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